

**APPENDIX D
OF
CLEANUP ACTION PLAN
ABLE PEST CONTROL SITE
KENMORE, WASHINGTON
FARALLON PN: 602-002

HEALTH AND SAFETY PLAN**

**Submitted By
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**For:
Ms. Sharon Schlittenhard
Ms. Sharon Keller
Personal Representative
Estate of Sheridan Martin**

May 23, 2000

Prepared by

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Reviewed by

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Principal

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FIGURES

FIGURE 1	Site Location Map
FIGURE 2	Site Layout Map
FIGURE 3	Hospital Location Map

1.0 ADMINISTRATIVE INFORMATION

1.1 PROJECT DESCRIPTION

Project Name: Former Able Pest Control Site

Project No.: Farallon Consulting LLC No. 602-002

Site Location: 18115 62nd Avenue NE, Kenmore, Washington

Work Summary: Excavation and Soil Sampling

Comments:

Prepared by: Farallon Consulting, L.L.C.
Date: April 10, 1999

Proposed Date(s) of Operation: 05-01-00 through 10-31-00

Approvals (Project Manager and one of the other two)

Farallon Consulting LLC Project Manager: Date: 4/10/00

Field Supervisor: Date: 4/10/00

Industrial Hygienist: Date: _____

1.2 SCOPE OF SAFETY PLAN

A site location map is presented as Figure 1. A site layout map is presented as Figure 2, and includes anticipated work zones. Figures 1 and 2 are incorporated at the end of the health and safety plan.

This site-specific safety plan is intended to meet the requirement of 29 CFR Part 1910.120, 8 CCR 5192 and the USEPA Standard Operating Safety Guides for Hazardous Waste Operations (1986). All employees involved in field work at this site have completed the required 40 hours initial training, maintain qualification through annual refresher training, are under a program of medical monitoring, and are certified to wear respiratory protection, as specified in 29 CFR part 1910.134 and 8 CCR 5144. In addition, an effective Illness and Injury Prevention program has been implemented in accordance with 8 CCR, sections 1509 and 3203.

This plan was prepared from the best available information concerning site conditions. It is recognized that conditions on a site may change or that more information may become available during the operation. Unless specified in this site-specific safety plan, the field team does not have the option to modify the levels of personal protection in any way. If during the operation, it is determined that the protection specified in the site-specific safety plan requires modifications, work will cease, and the Field Supervisor will contact the Project Manager and/or Company Safety Representative. Work will not resume until authorized.

A project orientation meeting will be held prior to commencement of the project outlining ALL work activities, safety concerns and communication measures. The project scope of work, potential known site hazards and contents of this health and safety plan will be reviewed during the project orientation meeting. In addition, daily tailgate meetings will be held prior to starting work each morning. Chain-of-communication and communication responsibilities are addressed in Section 2.2.

1.3 FIELD TEAM ASSIGNMENTS

DUTY	NAME
Team Leader/Project Manager	Peter Jewett
Site Safety/Field Supervisor	Riley Conkin
Alternate Site Safety/Field Supervisor	Matt Essig

A form documenting onsite workers that have reviewed this document and attended the project orientation meeting is included in Section 1.5 of this health and safety plan. Documentation of attendance at the daily project meeting(s) is also included in Section 1.5 of this plan.

1.4 SUBCONTRACTORS AND COMMUNICATION

The following subcontractors will perform work during this operation. All employees of subcontractors performing work with the potential for exposure to hazardous waste shall meet the requirements of 29 CFR 1910.120 and 8 CCR 5192. Each company/contractor working on this project maintains the responsibility for the safety of its employee(s). In addition, each field team member and the separate companies/contractors working on this project maintain a general

responsibility to identify and correct any health and safety hazards and cooperate toward working as safely as possible.

1. Name: Premium Construction Group, Inc.
Telephone No.: 425-334-6918
Address: 12014 20th Street SE, Everett, WA 98205
Authorized Representative: Jim Fagerlie
Services Provided: Excavation, backfill, and demolition.
Contract No.: _____ Date: _____

2. Name: _____
Telephone No.: _____
Address: _____
Authorized Representative: _____
Services Provided: _____
Contract No.: _____ Date: _____

3. Name: _____
Telephone No.: _____
Address: _____
Authorized Representative: _____
Services Provided: _____
Contract No.: _____ Date: _____

A copy of this site health and safety plan will be available for review prior to commencing work and during work at the site. Subcontractors are encouraged to follow this plan or develop their own project-specific health and safety plan. If a subcontractor prepares a project-specific safety plan, it must meet the applicable requirements in 29 CFR 1910.120, 8 CCR 5192 and the USEPA Standard Operating Safety Guides for Hazardous Waste Operation (1986).

1.5 SAFETY COMPLIANCE AGREEMENT FORM

Site: Former Able Pest Control Site
 Kenmore, Washington

Project No.: 602-002

I, the undersigned, acknowledge that I have attended the safety meeting, and received a copy of this site-specific safety plan. I have read and understood the safety plan, and do agree to adhere to the requirements specified by it. I understand that I may be prohibited from continuing work on the project for failing to comply with this safety plan.

Signature	Print name	Company	Date

2.0 DESCRIPTION OF WORK TO BE PERFORMED

Section 2.1 contains a list of planned field activities. Section 2.2 describes communication procedures during fieldwork

2.1 SAMPLING ACTIVITIES

Excavate soil and collect shallow soil samples.

2.2 COMMUNICATION DURING SITE ACTIVITIES

Most site activities will consist of at least two onsite personnel, working in relatively close proximity. The chain-of-communication (i.e., laborer, technician, supervisor, manager) will be outlined during the project orientation meeting and reiterated during daily tailgate meetings. Each field team member (contractor or subcontractor) must maintain a responsibility to identify and correct health and safety hazards. A field activity manager/supervisor will be designated prior to each onsite work project.

Identified health and safety hazards shall be communicated as soon as possible to the site supervisor or field activity manager. Appropriate corrective actions shall be implemented as specified in subsequent sections of this plan. Common hand signals shall be reviewed during this project during the project orientation meeting and daily meetings. Responsibilities for initiating emergency responses, notification of appropriate officials, buddy watch system (if appropriate) and implementation of corrective measures shall also be established during these meetings.

3.0 SITE BACKGROUND

3.1 SITE PHYSICAL DESCRIPTION

The site is located at 18115 62nd Avenue Northeast, Kenmore, Washington. The facility is a residential building.

3.2 SITE HISTORY (ACTIVITIES, INCIDENTS, ETC)

Former Able Pest Control Property.

3.3 TYPES OF MATERIALS KNOWN TO HAVE BEEN STORED ON THE SITE

Pesticides.

3.4 MATERIALS KNOWN OR SUSPECTED TO REMAIN ONSITE

Pesticide contaminated soil.

3.5 SITE STATUS (ACTIVE/INACTIVE, AGENCY ACTIONS

1. Site Status: Inactive X Active
2. Has the site been characterized to the best of your knowledge?
Yes X No
3. Comments:

4.0 HAZARDS EVALUATION

Summary of anticipated hazards:

- () Physical hazards inherent to the site (overhead electrical lines)
- (X) Physical hazards related to excavator operations
- (X) Chemical hazards
- () Community hazards
- (X) Electrical hazards
- (X) Mechanical hazards
- () Biohazards
- () Heat stress
- () Confined space entry
- (X) Noise hazards
- (X) Other - trip and fall hazards

4.1 CHEMICAL HAZARDS (ATTACH REFERENCES)

	Chemical	Range of conc. In stored material (not removed from site) or soil	Mode of Intake 1,2,3,4	Limits (PEL/TLV)	IDLH Level of Concern (H/M/L)
1.	Chlordane	Non Detect to 1,120,000 ug/kg	1,2,3,4	0.5 mg/m3	L
2.	Dieldrin	Non Detect to 65,000 ug/kg	1,2,3,4	0.25 mg/m3	L
3.					
4.					

Notes: 1 = Inhalation, 2 = Ingestion, 3 = Absorption, 4 = Contact
H = High, M = Medium, L = Low

Identify locations where the contaminants are of greatest concern on the site: Exposure to potentially impacted soils and/or groundwater during soil and groundwater sampling activities.

Comments: Appropriate personal protective equipment (gloves, safety glasses, ext.) shall be worn during sampling to minimize potential contact with impacted soils and groundwater.

Based upon available site data and prior experience, it is not expected that site operations will result in significant airborne concentrations of vapors and/or dust. “Significant” refers to concentrations which would exceed the site’s referenced exposure action levels, or which are thought to pose any potential health threat to the site workers and/or surrounding community. Perimeter air monitoring will be performed a minimum of once per hour during excavating activities.

4.2 PHYSICAL HAZARDS

4.2.1 Physical Hazards Inherent to the Site

<input type="checkbox"/> Fire	<input type="checkbox"/> Explosion	<input type="checkbox"/> Anoxia
<input type="checkbox"/> Heat Stress	<input type="checkbox"/> Cold Stress	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Radiation	<input type="checkbox"/> Biohazards	<input checked="" type="checkbox"/> Mechanical Equipment

4.2.1.1 Excavation and Soil Sampling: Not Applicable

5.0 HAZARDOUS WASTE FIELD SAFETY DIRECTIVES

- No eating or smoking onsite.
- No contact lenses (if applicable to planned activities).
- Hard hats and steel-toed boots will be worn at all times (if applicable to planned activities).
- Site access will be restricted to authorized personnel only.
- All operations will have first aid kits, and fire extinguishers available.
- No facial hair is allowed that will interfere with the respirator face seal.
- Emergency information will be posted (Section 7.0).
- Safety plan will be available onsite at all times.

5.1 MECHANICAL HAZARDS

- Do not stand near rotating or hydraulic equipment while in operation.
- Verify that all equipment is in good condition.
- Do not stand or walk under elevated loads or ladders.
- Appropriate guards must be used if equipment has potentially hazardous moving parts.

5.2 ELECTRICAL HAZARDS

- Maintain a least 10-foot clearance from overhead power lines. A greater equipment distance will be maintained if required by local regulation
- Properly ground and/or bond all electrical equipment.
- Avoid standing in water when operating electrical equipment.
- If equipment must be connected by splicing wires, make sure all connections are properly taped.
- Be familiar with specific operating instructions for each piece of equipment.
- Assure appropriate bonding of containers when pumping flammable liquids.

5.3 CHEMICAL HAZARDS

Absorption, inhalation potential.

5.4 HEAT STRESS

When workers exhibit symptoms of heat stress (i.e. redness of skin, profuse sweating etc.), the individual(s) will take frequent rest breaks in a shaded area. Unzip or remove coveralls during breaks. Have cool water or electrolyte replenishment solution available. Drink small amounts frequently to avoid dehydration. Count the pulse rate for 30 seconds as early as possible in the rest period. If the pulse rate exceeds 110 beats per minute at the beginning of the rest period, shorten the work cycle by one third.

5.5 NOISE HAZARDS

Use earplugs or earmuffs when noise level prevents conversation in normal voice at distance of three feet; this corresponds to an action level of 85 dB for mandatory hearing protection use. Use hand signals, as defined in 40-hour health and safety training, to facilitate communication when hearing protection is required. If noise levels do not allow effective communication, either shut down equipment or move away from the noise source if needed.

Use hearing protection when working within 50 feet of any operating equipment.

5.6 CONFINED SPACE ENTRY

Confined spaces include excavations, tanks, trenches, pits, sumps, elevator shafts, tunnels, or any other area where circulation of fresh air is restricted or ability to readily escape from the area is restricted. Confined space entry is not anticipated to be required during cleanup activities.

5.7 RADIATION HAZARDS

There are no known sources of radiation present at the site.

5.8 BIOHAZARDS

Mosquitoes, and other insects (disease carriers or poisonous).

6.0 PLANNING/SITE SETUP

6.1 SITE SETUP

Onsite communication method: Line of sight, hand signals when using hearing protection or under conditions of excessive noise. Air horn for emergency signal.

Offsite communication method: Offsite telephones.

Site Security: Not Applicable

Identify the water and electrical locations: To be discussed at onsite safety meeting.

Emergency communication: If planned activities warrant the need to potentially notify field personnel of emergency conditions, refer to the site supervisor.

6.2 LEVELS OF PROTECTION AVAILABLE OR USED

USEPA/OSHA LEVEL: A___ B___ CX DX

Modifications/Additions: N/A

Comments:

6.3 AIR MONITORING GUIDELINES

Device	Action Level	Action to be Taken
*PDM-3 Miniram	38 mg/m ³	Employ dust suppression measures, don half face respirators with appropriate cartridges.
** LEL/Oxygen		
*** OVA/PID		

Comments:

6.4 MEASURES TO CONTROL OFFSITE MIGRATION AND EXPOSURE

Practical solutions are those normally available, which can be instituted in a reasonable time frame, by trained site personnel. The Field Supervisor or site health and safety officer will be allowed to modify procedures as determined by field conditions to ensure a safe working environment.

6.5 SPECIAL SITE CONSIDERATIONS

Work activities will be conducted in a manner which provides for awareness of, and immediate response to, circumstances which could result in public exposures.

7.0 FIELD ACTIVITIES

Excavation and collection of soil samples from proposed excavation areas in Lifts 1, 2, and 3 as described in Cleanup Action Plan.

7.1 SITE ENTRY AND SETUP

Initial level of protection: Level D protection, including hard hat, steel-toed boots, safety glasses.

Modifications: Based on work zone air monitoring, upgrade to Level C, using appropriate cartridges in respiratory equipment.

Special procedures, precautions, equipment: None anticipated.

7.2 SITE ACTIVITIES (GENERAL)

Initial level of protection: Level D protection, as above.

Modifications: Upgrade to Level C based on air monitoring.

7.2.1 Site Activities (Task Specific)

Collect shallow soil samples.

Modifications: Respiratory protection in accordance with section 6.3, total upgrade to Level C.

7.3 SAMPLE HANDLING AND PRECAUTIONS

Personnel will wear gloves and other protective equipment as necessary during the handling of soil samples. The analytical laboratory used for this project will be notified prior to shipment of the suspected contaminants at this site.

Sample containers will be decontaminated prior to shipping. Sample containers will be protected from breakage by wrapping in bubble wrap, etc., if required, placed in zip-lock bags, and packed in absorbent material. Shipping containers will be clearly labeled. Samples will be shipped under full Chain-Of-Custody procedures.

7.4 DECONTAMINATION PROCEDURES

Contact with hazardous organic chemicals is possible in the work zone. The following decontamination procedures will be implemented to minimize the movement of contaminants outside of the work zone, and to minimize the period of contact with these contaminants.

7.4.1 Personal Hygiene

Field team personnel should conduct the following to ensure that contaminants will not remain in contact with their bodies:

1. Field personnel involved in the excavation/sampling activities are instructed to wash their hands, face, neck and forearms at the end of the workday. Soap, water and towels will be provided at the site for this purpose;
2. Field personnel are instructed to take a full-body shower at home or motel at the end of the workday; particular attention should be paid to areas of the body that are typically overlooked, such as behind the ears or between the toes;
3. Disposable personal protective equipment (i.e. Tyvek suits, disposable ear plugs, gloves, booties and respirator cartridges, etc.) will be discarded in garbage bags and then placed in trash bins after each day of use; and
4. Other non-disposable protective equipment (see Section 8.0) will be washed in warm or hot soapy water after each day of use.

7.4.2 Equipment Decontamination

Equipment, samplers and parts of the excavator that have come into contact with contaminants will be cleaned before reuse at another location, at the end of each day, and prior to leaving the site. Decontamination will be with warm soapy water, steam/pressure washer, and organic solvents, if necessary. Decontamination wash and rinse water will be containerized and managed in accordance with applicable regulations.

8.0 EQUIPMENT LISTS

Personal Protective Equipment

Place an “X” at the level chosen, and a * (X) at the alternative.

Level C		Level D	
Air Purifying Respirator			
Full Face			
Half Mask Cartridge Type: Dust	X		
Escape Air Pack		Escape Pack	
Surgical Gloves		Surgical Gloves	
Outer Work Gloves		Outer Work Gloves	
Type: NITRILE	X	Type: NITRILE	X
Protective Clothing Type: Flame Retardant		Protective Clothing Type: Long Sleeves	X
Polycoated Tyvek for wet conditions	X		
Rain Suit			
Butyl Apron		Butyl Apron	
Safety Glasses	X	Safety Goggles	X
Hard Hat	X	Hard Hat	X
Neoprene Safety Boots		Neoprene Safety Boots	
Steel-Toed Boots	X	Steel-Toed Boots	X
Boot Covers		Boot Covers	
Hearing Protection	X	Hearing Protection	X
Rain Pants (wet conditions)	*X	Rain Pants (wet conditions)	*X
Instrumentation		First Aid Equipment/Supplies	

OVA/PID		First Aid Kit	X
HNU		Oxygen	
OVM		Eye Wash	
Miniram Dust Monitor	X	Stretcher	
Oxygen/explosimeter		Tool Kit	X
Drager Kit:		Thermometer(s)	
Tubes used:		Tables	
		Chairs	
Low Flow Air Pumps		Sampler Rack	
High Flow Air Pumps		Fire Extinguishers	X
Radiation Monitor - 4			
Radiation Dosimeters			
Noise Meter			
WBGT			
pH meter			
Magnetometer			
GPR			
EM			
AIR HORN*			
Conductivity/Temperature Meter			

Decontamination Equipment	X	Other Equipment.	
Plastic Sheetting	X	Blood Pressure Monitor	
Large Washtubs		Drinking Water	X
Small Washtubs	X	Camera	X
Scrub Brushes	X	Film	X

Pressurized Sprayers	X	Drum Dolly	
Solvent Sprayer(s)		Trowels	
Plastic Trash Cans		Pick	
Trash Bags	X	Site Security	
Water Bottles		Shovels	X
Paper Towels	X	Binoculars	
Duct Tape		Traffic Cones	X
Masking Tape		Megaphone	
Ziploc Bags		Banner Tape	
Detergent		Radio/Mobil Telephone	X
TSP	X	Flagging Tape	
Sodium Hypochlorite		Fencing	
Sodium Bicarbonate		Warning Signs	
Bleach		Thieving Rods	
Hand Soap		Waste Drum Levels	
Solvent Rinse		Bung Wrench (Brass)	
Acetone		Security Guard	
Hexane		Step Ladder	
Methanol		Bailers	
Other		Rope	
Acetone		Security Ladder	

9.0 EMERGENCY INFORMATION

(Post Onsite)

Acute Symptoms

Dizziness, nausea, headache

Unconsciousness

First Aid

Rest, shade, fresh air

Get medical help

Hospital Name: Evergreen Hospital

Directions to hospital: Reference Figure 1.

Emergency Conditions: IF AN EMERGENCY CONDITION, SUCH AS FIRE, CHEMICAL RELEASE, EXPLOSION, OR OTHER PHYSICAL THREAT TO LIFE OR IMMEDIATE HEALTH OCCURS, ALL PERSONNEL ARE TO IMMEDIATELY EVACUATE THE WORK AREA. OPERATING EQUIPMENT WILL BE TURNED OFF PRIOR TO EVACUATION. PERSONNEL WILL EVACUATE TO AN ASSEMBLY AREA LOCATED AT THE NORTHEASTERN CORNER OF THE SITE, FURTHER IDENTIFIED AS THE LOCATION OF THE DRIVEWAY ENTRANCE BARRICADE LOCATED AT 62ND AVE NE AND THE DRIVEWAY ENTRANCE. EMERGENCY CONTACT WILL BE MADE IMMEDIATELY TO THE APPROPRIATE REPORTING AGENCY, OR 911, AS DETERMINED BY THE SITE SUPERVISOR OR ACTING SUPERVISOR. NEIGHBORING RESIDENTS AND BUILDING OCCUPANTS WILL BE NOTIFIED IMMEDIATELY AS DIRECTED IN THE FACT SHEET TO BE PREPARED PRIOR TO SITE MOBILIZATION.

Local Resources: 911

Ambulance: 911

Hospital Emergency Room: Evergreen Hospital
425/899-1000

Law Enforcement: 911

Fire Department: 911

Explosives Unit: 911

Poison Control Center: 911

Agency Contact:

Client Contact:

Laboratory: On-Site Environmental

Principal Contractor: Farallon Consulting LLC

Project Manager: Peter Jewett (Farallon Consulting, L.L.C. 425/427-0061

Industrial Hygienist: Cliff Schmitt (Farallon Consulting, L.L.C. 425/427-0061)

10.0 COMMUNITY RELATIONS

Emergency notification procedures and guidance on sampling procedures will be provided. An on-site contact person will be identified and introduced to the notified parties. In addition, contact phone numbers will be provided for the purpose of continued communication with all of the affected parties.

Ongoing effort is being made to minimize any disturbance of the normal activities which occur on a day-to-day basis in the areas adjacent to the construction operations.

11.0 TRAINING AND MEDICAL SURVEILLANCE

All on-site personnel will have completed 40-hour, Refresher, and Supervisor training, as appropriate, and as required by 8 CCR 5192. Additional training includes but is not limited to Hazard Communication (8 CCR 5194), Respiratory Protection (8 CCR 5144), Illness and Injury Prevention (8 CCR Sections 1509 and 3203), emergency procedures and first aid/CPR. Site-specific training will include a review of this plan and any additional information which becomes available to the site personnel throughout the duration of the project.

Medical monitoring for Farallon Consulting, L.L.C. personnel includes pre-employment and annual medical examinations in compliance with 8 CCR 5144 and 8 CCR 5192. Any person injured onsite or who suffers symptoms consistent with overexposure to site materials and/or heat stress will be provided immediate medical attention.

FIGURE 1

SITE LOCATION MAP

FIGURE 2

SITE LAYOUT MAP

FIGURE 3

HOSPITAL LOCATION MAP